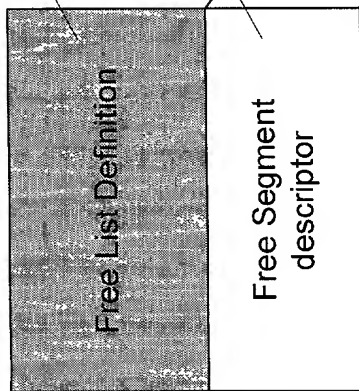


100 2

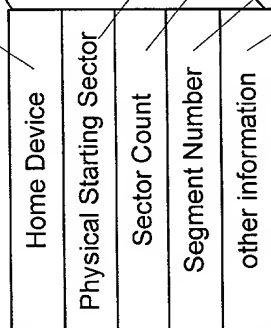
View of a Free Segment
List Table as a single table



105 4

110 6

Segment Descriptor
components



10 155

12 160

105 14

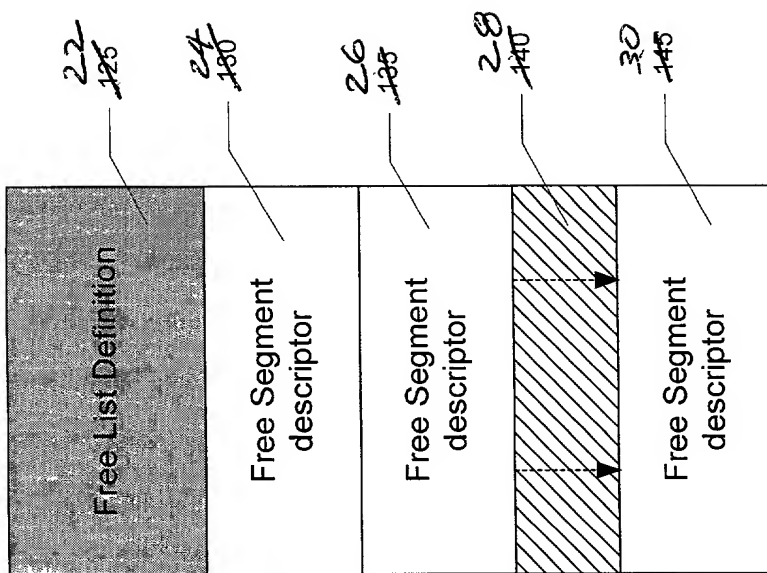
170 16

175 18

Free Segment descriptors are pre-initialized with information that defines the segment it represents. The home device, physical starting sector, sector count and segment number are examples of data that are stored into the descriptor before it is assigned into the segment map. the descriptor before it is assigned into the segment map.

Other data that becomes known such as status flags will be stored when a descriptor is assigned. (Status flags field is not shown, it is a member of "other information")

View of a Free Segment
List Table as multiple
tables



22 125

24 180

26 135

28 140

30 145

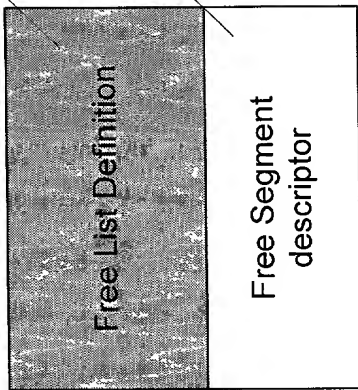
Figure 0.1 1

This free descriptor represents a specific area on a specific storage device.

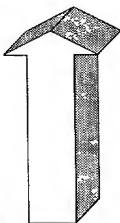
200 50

Free Segment List

200 52

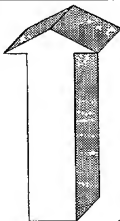


210 54



A Free Descriptor is moved from the Free Segment List to the appropriate slot in the Segment Map

Home Device
Physical Starting Sector
Sector Count
Segment Number
other information



56
240
24358
250 60
255 62
260 64

In this example, a free descriptor is moved into Slot 1 of the segment map.

After the data is stored into the free slot, the descriptor may be filled in with additional information that was unknown until it became allocated

Segment Map with allocated segments

220 68

225 70

Slot 0

Segment 0
Allocated

230 72

Slot 1

Free Slot

235 74

Slot n

Free Slot

Figure 0.2 2

Segment and Disk Sector Relationship

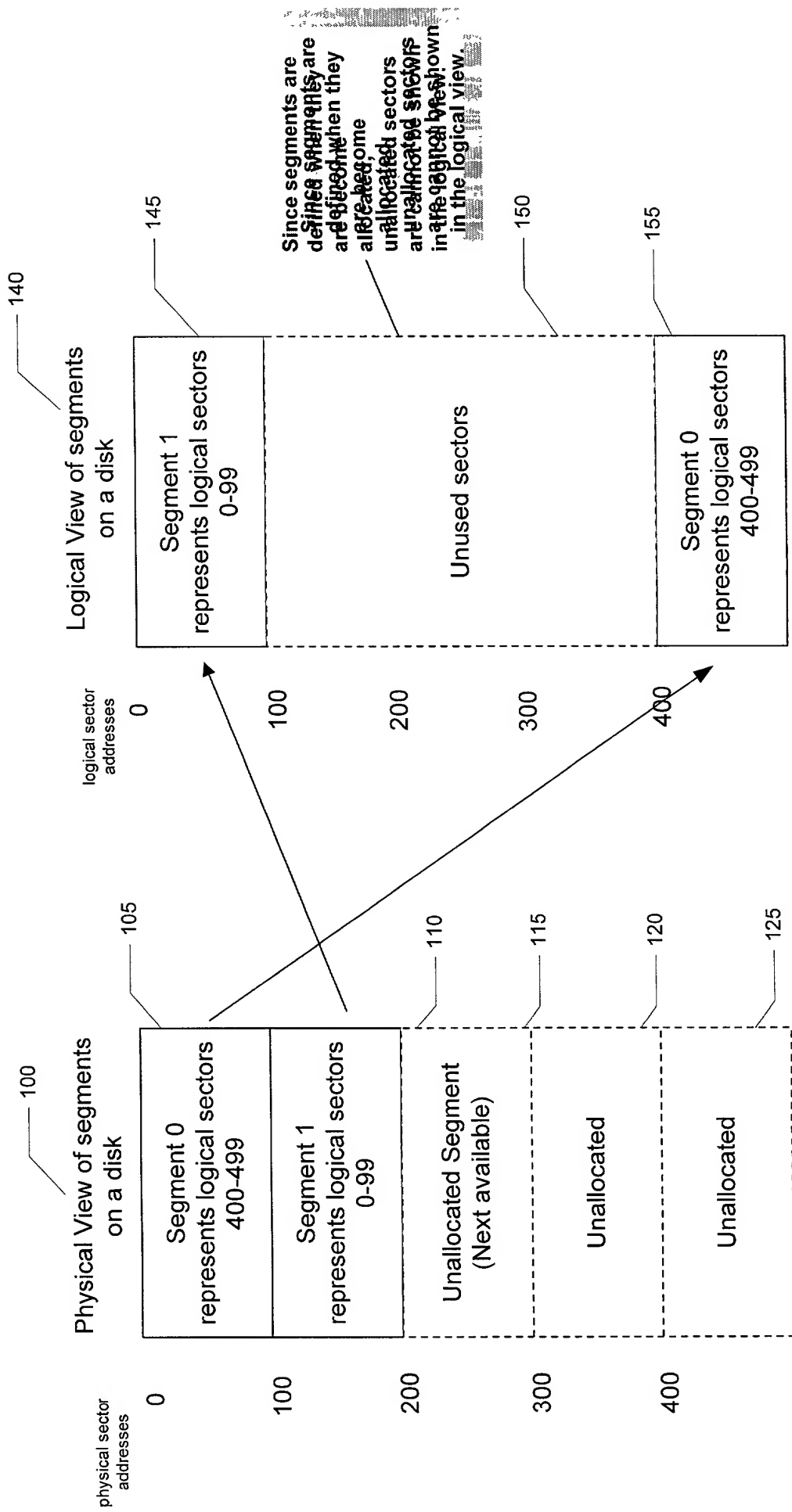


Figure 3

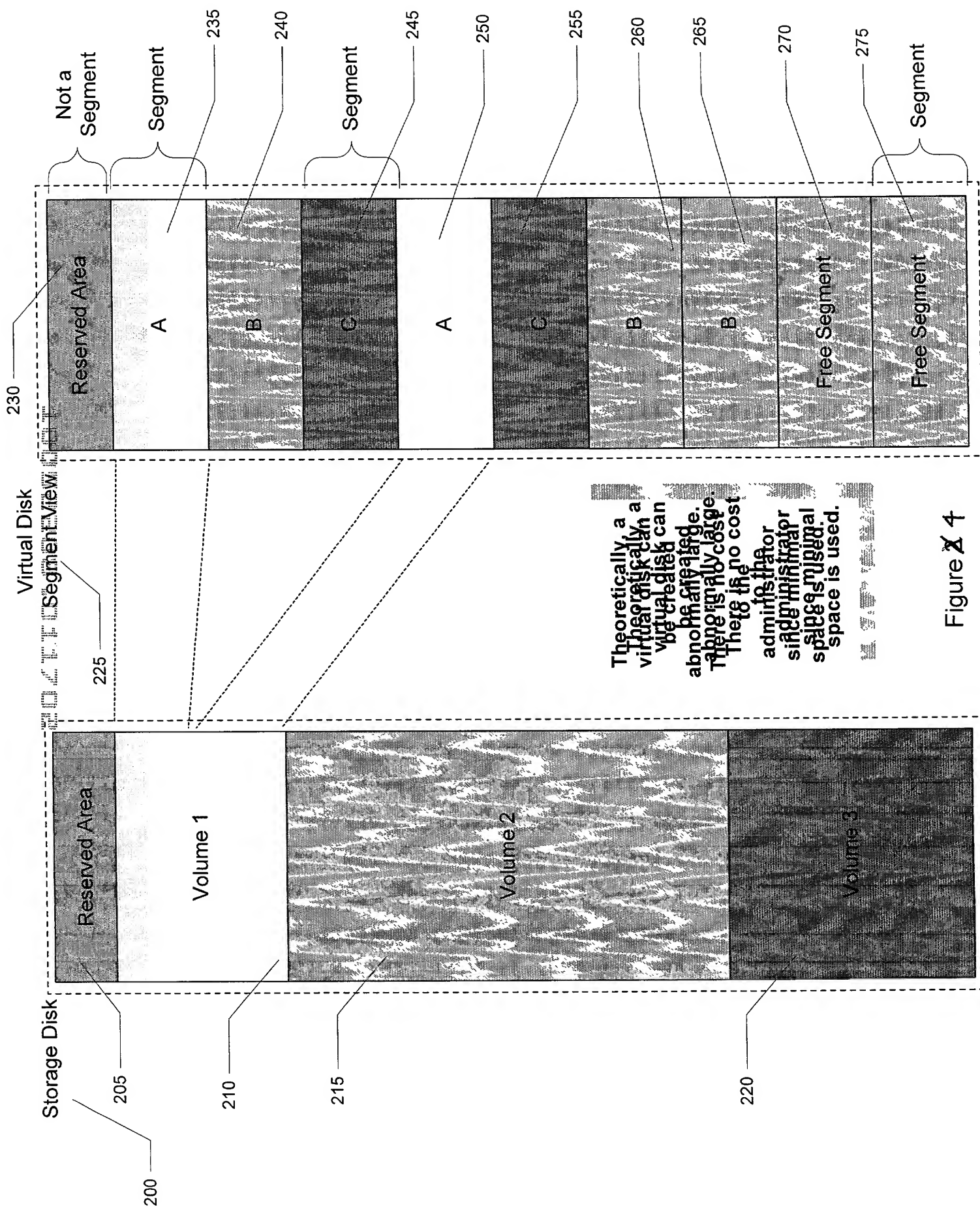


Figure 4

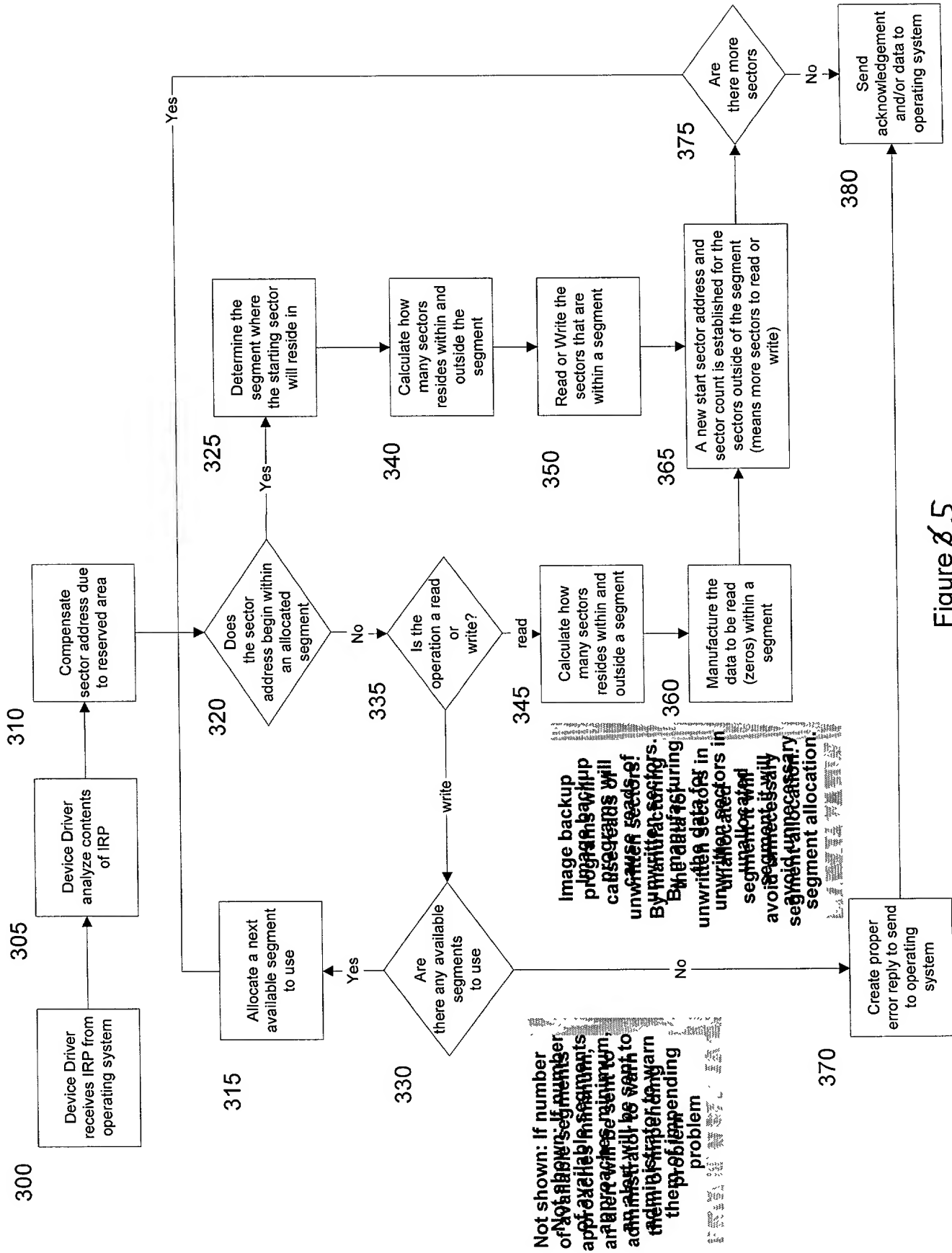
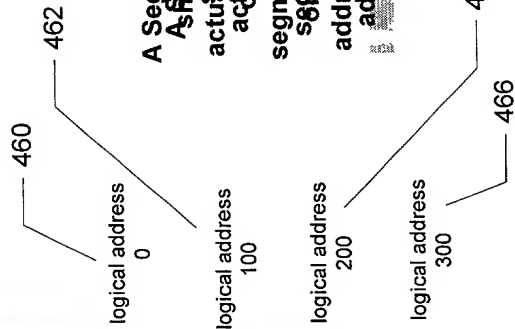
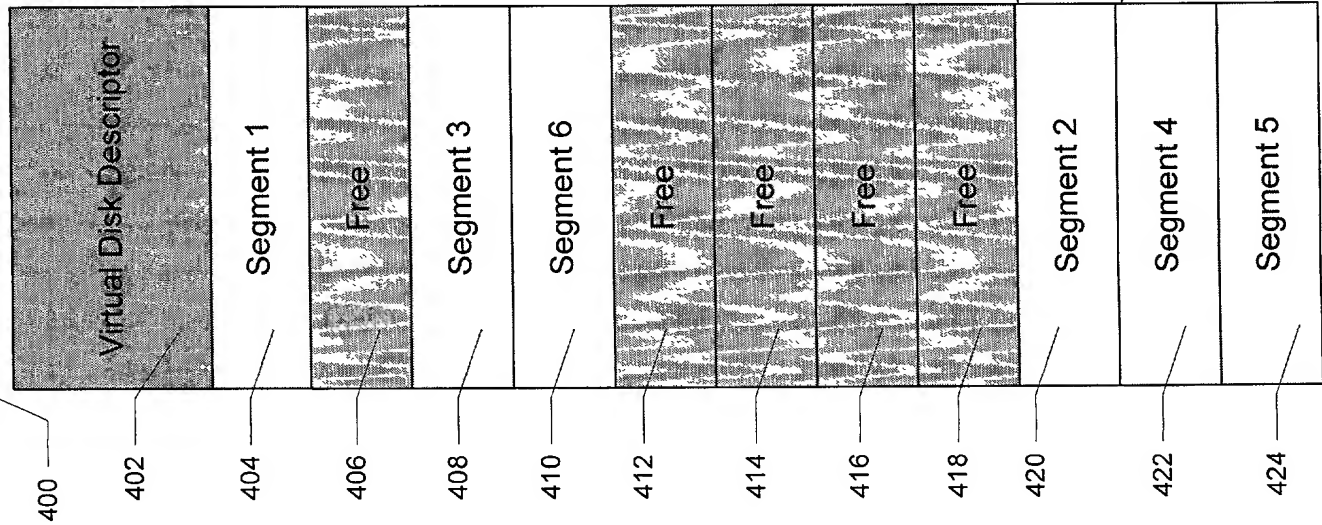


Figure 5

Segment Map in memory



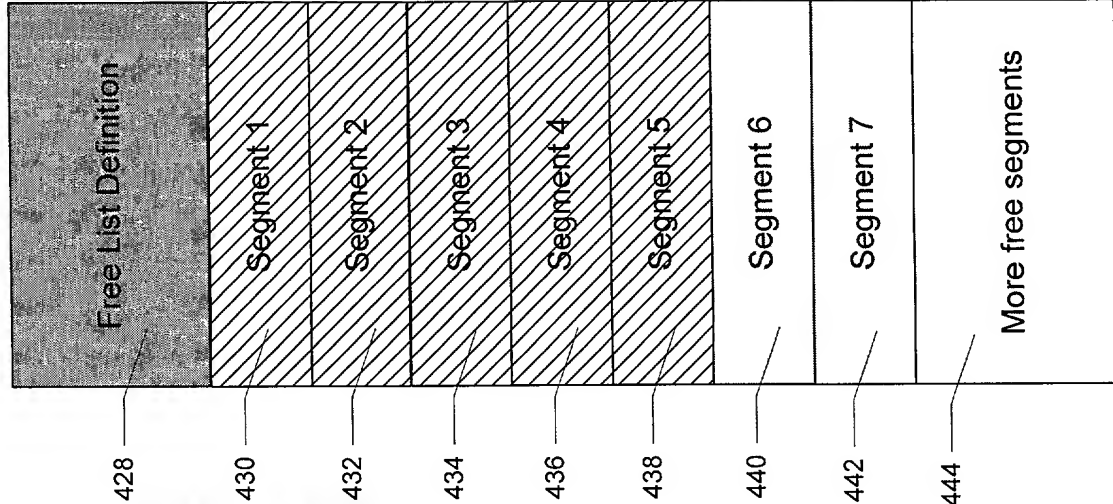
A Segment Map
A Segment Map
actual position
segment reached
segment based
address order

Number of free
segments
size based on
virtual disk
size/segment
size

450	Home Device
452	Physical Starting Sector
454	Sector Count
456	Segment Number
458	other information

448

Free Segment List



Segments may be allocated
out of order. When a segment
may be allocated to a disk
example, a write may occur
for a segment that has not
yet been allocated. This may
cause a segment to be
allocated 100 to
become allocated.



Figure 6

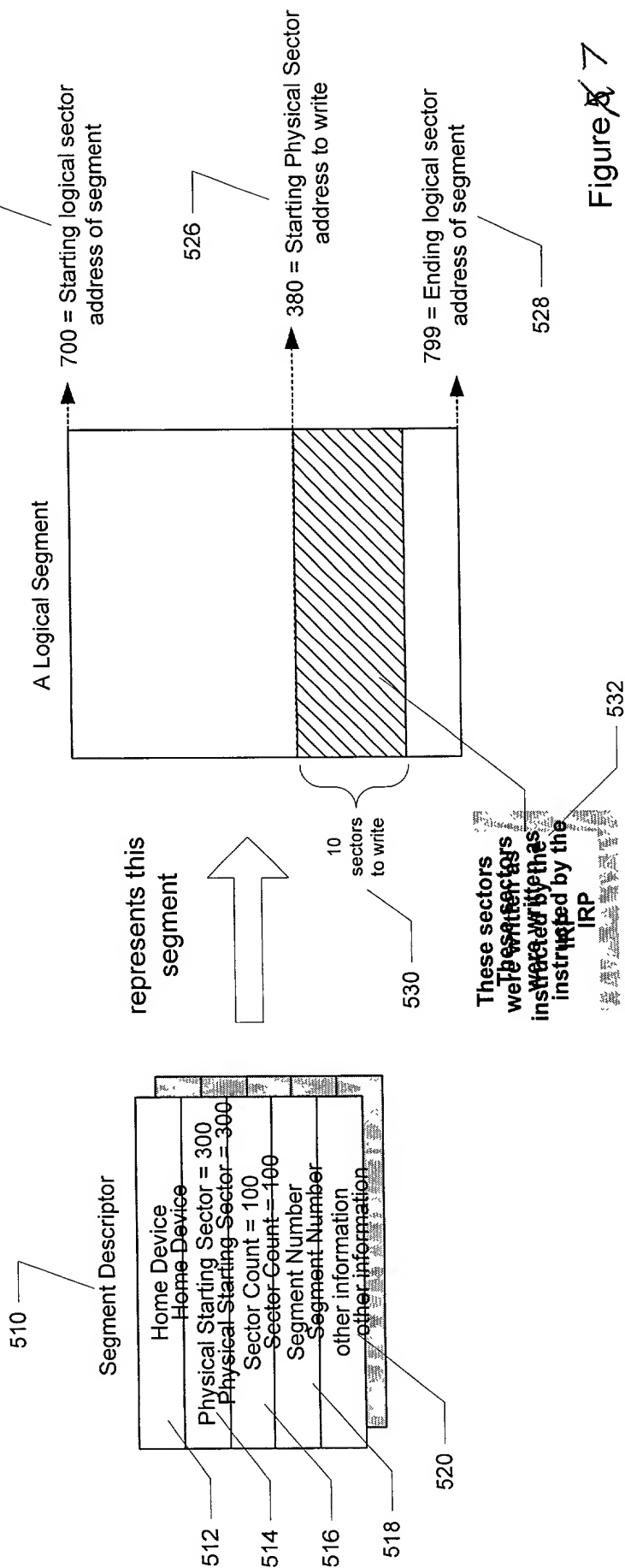
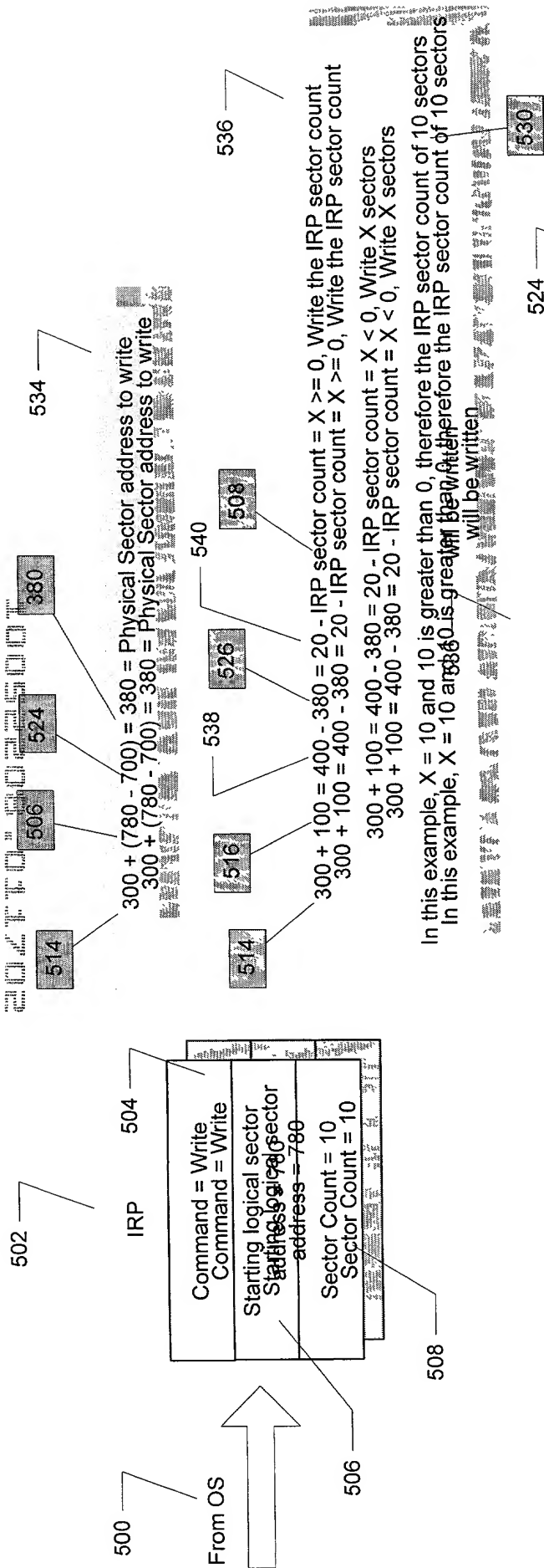


Figure 7

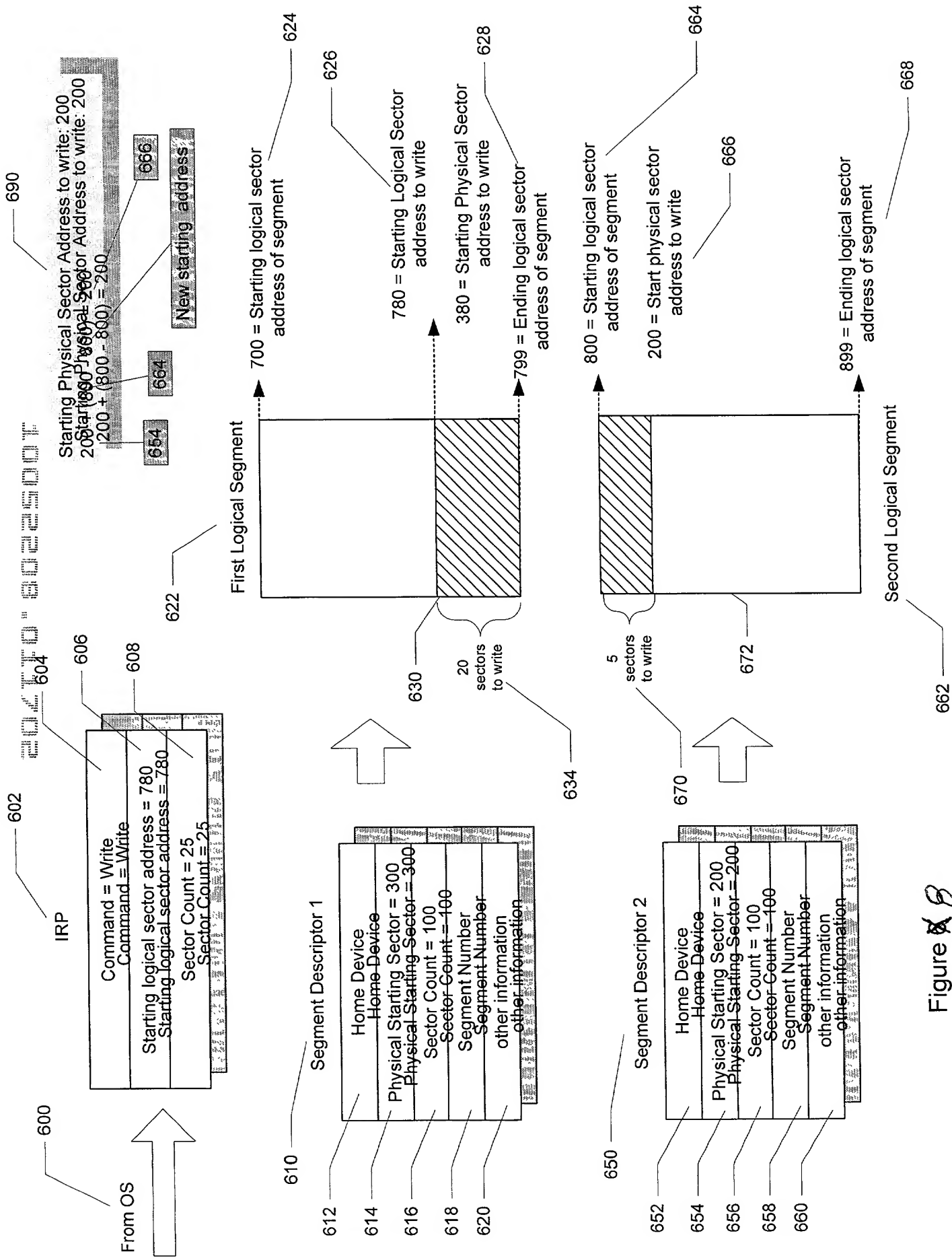


Figure 8